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Hosepipe-kinking of a dissected coronary artery: an unusual kind of pseudo lesion

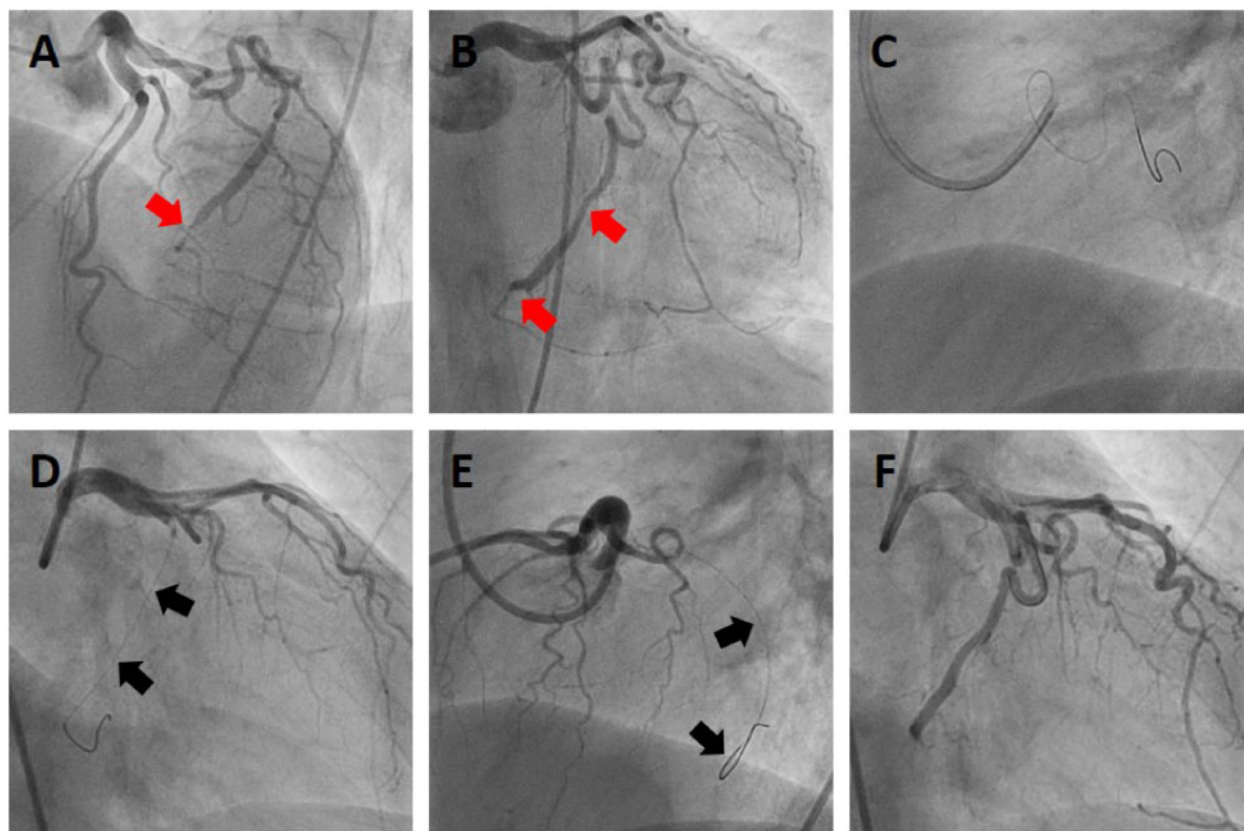
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A 63-year-old female patient was referred to our hospital for emergency coronary angiography after presenting to her local general practitioner with acute chest pain and inferolateral ST elevation.

Coronary angiography revealed a subtotal occlusion of the left circumflex artery (LCx) (Panels A and B, red arrows) and severe coronary tortuosity (Panel C). A long diffuse and smooth stenosis in the



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mid-to-distal LCx segments followed by an abrupt calibre reduction were indicative of a Type 2b coronary dissection. The patient showed signs of ongoing ischaemia with persistent chest pain, marked inferolateral ST elevations ([Supplementary material online, Figure](#)) and akinesia of all apical and inferior segments ([Supplementary material online, Video](#)). Therefore, it was decided to proceed with intravascular imaging to evaluate the potential for interventional revascularization. After advancing the guidewire to the distal LCx, a proximal occlusion of the LCx, suggestive of a potential iatrogenic proximal propagation of the dissection was documented (*Panels D and E*, black arrows). However, a prominent deviation between the initial tortuous course of the LCx and the straight position of the advanced guidewire raised suspicion of a hosepipe like kinking of the LCx as an alternative cause for the proximal occlusion. After careful consideration of the severely distorted vessel geometry and the limited potential for further intravascular imaging and intervention, the guidewire was slowly withdrawn to restore the initial vessel geometry. Minimal pull on the guidewire released the kinking without signs of propagation of the dissection (*Panel F*). Due to this unusual vascular response to the guidewire, no further diagnostic or interventional procedure could be performed and the patient was continued on conservative management.

Guidewire induced kinking of a dissected coronary artery is challenging to manage, as it may mimic secondary iatrogenic dissection and the need for restoring initial vessel geometry by withdrawal of the guidewire has to be balanced against the risk of losing the true lumen. Given the rather low procedural success of coronary interventions in spontaneous coronary artery dissection, additional complicating factors such as excessive tortuosity should be weighted in favour of initial conservative management even in patients with ongoing ischaemia.

Supplementary material

[Supplementary material](#) is available at *European Heart Journal - Case Reports* online.

Consent: The author/s confirm that written consent for submission and publication of this case report including image(s) and associated text has been obtained from the patient in line with COPE guidance.

Conflicts of interest: none declared.